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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/993,961	11/27/2001	Karel van den Berg	8553/114a	9011

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EXAMINER	
CHAUDHRY, SAEED T	
ART UNIT	**PAPER NUMBER**
1746	

DATE MAILED: 01/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/993,961	BERG, KAREL VAN DEN	
	Examiner	Art Unit	
	Saeed T Chaudhry	1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *31-54* is/are pending in the application.

4a) Of the above claim(s) *45-54* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *31-44* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Applicant's amendments and remarks filed October 23, 2003 have been acknowledged by the examiner and entered. Claims 1-30 have been canceled and claims 31-54 are pending in this application for consideration. Substitute specification has been entered.

Applicant's election with traverse of Group I, claims 31-44 in Paper No. 10 is acknowledged. The traversal is on the ground(s) that all of the claims submitted in the instant application are focused on the automatic cleaning of milk pipelines and equipment used on dairy farms. This is not found persuasive because each invention has different effect and different mode of operation. Group I requires to test two different distinctive ionic conductivity liquids in hydrogen peroxide which is not required in II_IV invention, .Group II requires an automatic cleaning by adding alkali cleaning fluid which is not required by inventions II, III and IV, Group III requires cleaning and rinsing by circulating cleaning fluid by circulating which is not required by inventions I, II and IV, and Group IV requires a method of cleaning elements of teats by robotic mechanism, which is not required by inventions I, II and III.

The requirement is still deemed proper and is therefore made FINAL.

Double Patenting

Claims 35-44 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3 of U.S. Patent No. 6,323,033 in view of Hei et al.

Patent No. 6,323,033 discloses all the limitations as claimed herein. But fails to disclose rinsing fluid such as hydrogen peroxide or hydrogen peroxide and a peracid.

Hei et al (5,567,444) disclose a method of cleaning and sanitizing process facilities such as milk line dairy by circulating an aqueous sanitizing composition comprising an effective amount of hydrogen peroxide and acetic acid. The reference discloses that it is common to prepare, in-situ, and employ peracid sanitizers with hydrogen peroxide (see claim 25 and col. 24, lines 41-44). The composition of the invention can be formulated by merely mixing acetic acid, hydrogen peroxide and fatty acids. By allowing solution time for equilibrium to be obtained tne product containing both of the active biocides is obtained (see col. 12, lines 45-50). The peracid components used in the composition of the invention can be produces in a simple manner by mixing a hydrogen peroxide solution with the desired amount of acid. The hydrogen peroxide solution can be added to peracid such as peracetic acid to produce the peracid composition. The concentrate can contain about 1 to 70%, preferably 5 to 30 wt-% of hydrogen peroxide.

It would have been obvious at the time applicant invented the claimed process to utilize hydrogen peroxide or hydrogen peroxide and peracid as disclosed by Hei et al in the process of 033' for the purpose of sanitizing the milk lines. Since the 033' discloses to measure the electric current to differentiate the concentration of the milk or the rinsing liquid. Therefore, one of ordinary skill in the art would expect to find the concentration of the hydrogen peroxide solution.

The non-statutory double patenting rejection, whether of the obvious-type or non-obvious-type, is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent. In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); In re Van Ornam, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); and In re Goodman, 29 USPQ2d 2010 (Fed. Cir. 1993).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321 (b) and © may be used to overcome an actual or provisional rejection based on a non-statutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.78 (d).

Effective January 1, 1994, a registered attorney or agent of record may sign a Terminal Disclaimer. A Terminal Disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
> (c) he has abandoned the invention.
> (d) the invention was first patented or caused to be patented, or was the subject of an inventor's certificate, by the applicant or his legal representatives or assigns in a foreign country prior to the date of the application for patent in this country on an application for patent or inventor's certificate filed more than twelve months before the filing of the application in the United States.
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.
> (f) he did not himself invent the subject matter sought to be patented.
> (g) before the applicant's invention thereof the invention was made in this country by another who had not abandoned, suppressed, or concealed it. In determining priority of invention there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other.

Claims 31-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Hei et al.

Hei et al (5,567,444) disclose a method of cleaning and sanitizing process facilities such as milk line dairy by circulating an aqueous sanitizing composition comprising an effective amount of hydrogen peroxide and acetic acid. The reference discloses that it is common to prepare, in-situ, and employ peracid sanitizers with hydrogen peroxide (see claim 25 and col. 24, lines 41-44). The composition of the invention can be formulated by merely mixing acetic acid, hydrogen peroxide and fatty acids. By allowing solution time for equilibrium to be obtained tne product containing both of the active biocides is obtained (see col. 12, lines 45-50). The peracid

components used in the composition of the invention can be produces in a simple manner by mixing a hydrogen peroxide solution with the desired amount of acid. The hydrogen peroxide solution can be added to peracid such as peracetic acid to produce the peracid composition. The concentrate can contain about 1 to 70%, preferably 5 to 30 wt-% of hydrogen peroxide. Hei et al disclose all the limitations as claimed herein. Therefore, claims 31-339 are anticipated by Hei et al. claims uses language essentially water, which still read on the Hei et al limitations of 1 to 70% hydrogen peroxide.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hei et al in view of Bowing et al.

Hei et al were discussed supra. However, the reference fails to disclose peracetic acid in the range of five to fifteen percent by weight.

Bowing et al (4,051,059) disclose a composition to prevent the growth of germs on machines particularly food industries and killing microorganism comprising 0.5% to 20 % peracetic acid, 25 to 40 % hydrogen peroxide and remainder to 100% by weight water (see col. 3, lines 5-8, col. 4, line 1 and claims).

It would have been obvious at the time applicant invented the claimed process to utilize composition as disclosed by Bowing et al and manipulate the percentage of the peracetic acid in the process of Hei et al to enhance the cleaning efficiency and prevent the growth of the germs in the milk line system.

Claims 39-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE-342711 in view of Hei et al.

Hei et al. were discussed supra. However, the reference fails to use electrical conductivity measurment of cleaning solution.

DE-3424711 discloses a method of determining the cleanliness of food manufacturing machinery wherein the cleaning fluid is applied to the parts of the system without dismantling, which uses a pair of measured values to show the electrical conductivity of the cleaning fluid before and after application. During the cleaning phase, the separate values are compared with each other. The cleaning phase is ended when the difference between the separate and simultaneous values has dropped to preset minimum level. The reference fails to use hydrogen peroxide as a cleaning solution.

It would have been obvious at the time applicant invented the claimed process to utilize hydrogen peroxide as a cleaning solution for milk line system as disclosed by Hei et al and measure the electric conductivity of cleaning solution as disclosed by DE-3424711 to control the duration of cleaning phase and to reduce the energy consumption by the cleaning process.

Further, one of ordinary skill in the art would measure the conductivity of the cleaning solution where it is most susceptible to contamination such as line interconnected with teat cups to enhance the cleaning efficiency. Furthermore, one of ordinary skill in the art would manipulate the percentage of the hydrogen peroxide for better cleaning and sanitizing the equipment.

Allowable Subject Matter

Claims 35-38 are allowed over the cited prior art.

Reasons For Allowable Subject Matter

The following is an Examiner's statement of reasons for the indication of allowable subject matter:

None of the prior art discloses or suggests a method wherein electrical current between a pair of electrodes determine the wholesomeness of milk or the fluid hydrogen peroxide. The closest cited prior art DE-3424711 disclose to compare electrical conductivity of the cleaning solution but fails to measure the conductivity of the milk to determine the wholesomeness of the milk.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saeed T. Chaudhry whose telephone number is (703) 308-3319. The examiner can normally be reached on Monday-Friday from 9:30 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Randy Gulakowski, can be reached on (703)-308-4333. The fax phone number for non-final is (703)-872-9310 and for after final is 703-872-9311.

When filing a FAX in Gp 1700, please indicate in the Header (upper right) "Official" for papers that are to be entered into the file, and "Unofficial" for draft documents and other communication with the PTO that are for entry into the file of the application. This will expedite processing of your papers.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0651.

Saeed T. Chaudhry
Patent Examiner
December 23, 2003

FRANKIE L. STINSON
PRIMARY EXAMINER
GROUP ~~2400~~ 1700